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10/711,684	09/30/2004	Christoph Lemm	2256.0	5683

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EXAMINER

DEUBLE, MARK A

ART UNIT	PAPER NUMBER
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3651

DATE MAILED: 04/06/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

10/711,684

**Applicant(s)**

LEMM, CHRISTOPH

**Examiner**

Mark A. Deuble

**Art Unit**

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-9 and 11-28 is/are rejected.
- 7) ☒ Claim(s) 10 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 September 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)             | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. ____.  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date ____.   | 6) <input type="checkbox"/> Other: ____.                                    |

## **DETAILED ACTION**

### ***Drawings***

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the elongated guide including a conveyor belt segment of claim 10 and the embodiment of claim 7 in which the second end of the elongated guide is permanently affixed at one of the first and second sides of the belt must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

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The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 1-16 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. Specifically, claim 1 states that the rollers of the roller-top conveyor belt can be rotated to urge a conveyed article toward the first or second side of the belt, however, no means for rotating the rollers to urge a conveyed article is shown or disclosed. It appears from the drawing and the specification that the rollers are merely passive rollers and not driven rollers as would be required for the rollers to urge the conveyed article to one side or the other of the conveyor.

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 14-15 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 14 recites the limitation "the linear drive" in lines 3-4. There is insufficient antecedent basis for this limitation in the claim.

Claim 14 also states that the pivot shaft is attached to the elongated guide generally midway between the first end and the second end to selectively rotate the belt. This renders the scope of the claims impossible to ascertain because it is not understood how the pivot shaft can

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rotate the belt. Instead, the pivot shaft rotates the elongated guide. It is recommended that the phrase "the belt" be replaced with the phrase "the elongated guide."

***Claim Rejections - 35 USC § 102***

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

7. Claims 1, 3-4, 16-17, 20, and 26-28 rejected under 35 U.S.C. 102(e) as being anticipated by Wolf (U.S. Publication No. 2004/0231960).

Wolf shows a sorting conveyor 12 with a sorting station forming a segment of a conveying line conveying articles in a conveying direction where articles can be diverted to a discharge conveyor 18 (see Fig. 1). The sorting station includes a linear elongate guide formed by members 14 and 16 that extend in length from a first end to a second end above the outer surface of the conveyor 12 to form a generally vertical wall. The guide is selectively positioned by a drive 110 into a first position traversing the width of the conveyor to intercept a conveyed article and guide it off a first or second side of the belt and a second position not intercepting a conveyed article to allow it to continue to advance in the conveying direction. In the embodiment shown in Fig. 12, the guide can also be selectively positioned in a third position intercepting a conveyed article and guiding it to an opposite side of the belt from a first position. As can be seen in Fig. 26, the conveyor may be a roller-top conveyor belt extending in width

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laterally from a first side to a second side and traveling in the conveying direction. This conveyor has a plurality of ball rollers having salient portions protruding outward from an outer surface of the belt to support a conveyed article. The rollers are capable of being rotated about axes oriented generally in the conveying direction to allow an article to be urged toward a first or second side of the conveyor belt. The conveyor includes a controller 120 that receives a signal from a sensor 121 disposed along the conveying line to sense a characteristic of a conveyed article at a position along the conveying line upstream of the sorting station. The controller controls the drive 110 of the guide means to adjust the orientation of the guide member as a function of the signal associated with a conveyed article. Thus Wolf shows all the structure required by claims 1, 3-4, 16-17, 20, and 26-28.

***Claim Rejections - 35 USC § 103***

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 1-8, 11-12, 16-17, 19-24, and 26-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lapeyre et al. (U.S. Patent No. 6,148,990) in view of Bonnet (U.S. Patent No. 5,988,356).

Lapeyre et al. shows in Figs. 4-6 a roller-top conveyor belt extending in width laterally from a first side to a second side and traveling in the conveying direction. This conveyor has a plurality of cylindrical rollers 48 mounted on axles 84 extending in the conveying direction so that the rollers having salient portions protruding outward from an outer surface of the belt to

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support a conveyed article. The rollers are capable of being rotated about their axes to allow an article to be urged toward a first or second side of the conveyor belt. While Lapeyre et al. does not include a sorting station as required by the present invention, it does suggest that the conveyor belt may advantageously be used to allow articles to be pushed off the side of the conveyor belt with a minimum of friction (col. 1, ln. 29-34). Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to provide the conveyor of Lapeyre et al. with a sorting station. Bonnet shows such a sorting station for diverting articles on a conveyor belt 26 which may advantageously be placed into a variety of positions. The sorting station includes a linear elongate guide formed by a conveyor belt 62 that extends in length from a first end to a second end above the outer surface of the conveyor to form a generally vertical wall. The guide is selectively positioned by a pair of linear drives 44 and 50 into a variety of positions. These positions would include into a first position traversing the width of the conveyor to intercept a conveyed article and guide it off a first or second side of the belt, a second position not intercepting a conveyed article to allow it to continue to advance in the conveying direction, a third position intercepting a conveyed article and guiding it to an opposite side of the belt from a first position, and a fourth position opposite the second in which the guide does not intercept a conveyed article. Furthermore, in moving between the first and third positions, the guide would move between a first angle oblique to the conveying direction and a second angle mirroring the first angle about the centerline of the belt so that the guide has been rotated about its midpoint. The first linear drive 50 is disposed at a first location defining a lateral track 52 below the conveyor belt transversing the conveyor belt. A first end 48 of the guide is attached to an arm 56 that is selectively driven along the track to move the guide

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between first and second positions at opposite side of the belt. The second linear drive 44 is disposed at a second location upstream of the first and defining a lateral track 46 below the conveyor belt transversing the conveyor belt. A second end 42 of the guide is attached to an arm 60 that is selectively driven along the track to move the guide between first and second positions at opposite side of the belt. In order to allow the length of the guide to change, it includes an elastic element 76 extending from the first end to the second end of the elongated guide. The position of the guide is determined by a controller 96 that receives a signal from a sensor 36 disposed along the conveying line to sense a characteristic of a conveyed article at a position along the conveying line upstream of the sorting station. The controller controls the drives of the guide means to adjust the orientation of the guide member as a function of the signal associated with a conveyed article. When the conveyor of Lapeyre et al. is provided with the diverter of Bonnet, it would have all the structure required by claims 1-8, 11-12, 16-17, 19-24, and 26-28.

In regard to the limitation of claims 6-8 and 20 that the drives be positioned on a track above the conveyor belt, it should be noted that the positioning of the tracks above or below the conveyor belt has no effect on the diverting operation of the guide and therefore the position of the drives is deemed to have been an obvious design choice absent some disclosure in the applicant's specification of some unusual advantage or result. *In re Kuhle*, 188 USPQ 7 (CCPA 1975).

10. Claims 1-2, 9, and 16-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lapeyre et al. (U.S. Patent No. 6,148,990) in view of Bell-Irving et al. (U.S. Patent No. 1,729,671).



Lapeyre et al. shows in Figs. 4-6 a roller-top conveyor belt extending in width laterally from a first side to a second side and traveling in the conveying direction. This conveyor has a plurality of cylindrical rollers 48 mounted on axles 84 extending in the conveying direction so that the rollers having salient portions protruding outward from an outer surface of the belt to support a conveyed article. The rollers are capable of being rotated about their axes to allow an article to be urged toward a first or second side of the conveyor belt. While Lapeyre et al. does not include a sorting station as required by the present invention, it does suggest that the conveyor belt may advantageously be used to allow articles to be pushed off the side of the conveyor belt with a minimum of friction (col. 1, ln. 29-34). Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to provide the conveyor of Lapeyre et al. with a sorting station. Bell-Irving et al. shows such a sorting station which advantageously employs a linear elongate guide 4 with rollers 30 arranged thereon to reduce friction and strain on the article. The guide extends in length from a first end to a second end above the outer surface of the conveyor to form a generally vertical wall. The guide is selectively positioned by a drive 14 into a first position traversing the width of the conveyor to intercept a conveyed article and guide it off a first or second side of the belt, a second position not intercepting a conveyed article to allow it to continue to advance in the conveying direction. When the conveyor of Lapeyre et al. is provided with the diverter of Bell-Irving et al. it would have all the structure required by claims 1-2, 9, and 16-20.

11. Claims 1-2, 13, 16-17, and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lapeyre et al. (U.S. Patent No. 6,148,990) in view of Carpenter (U.S. Patent No. 1,532,228).

Lapeyre et al. shows in Figs. 4-6 a roller-top conveyor belt extending in width laterally from a first side to a second side and traveling in the conveying direction. This conveyor has a plurality of cylindrical rollers 48 mounted on axles 84 extending in the conveying direction so that the rollers having salient portions protruding outward from an outer surface of the belt to support a conveyed article. The rollers are capable of being rotated about their axes to allow an article to be urged toward a first or second side of the conveyor belt. While Lapeyre et al. does not include a sorting station as required by the present invention, it does suggest that the conveyor belt may advantageously be used to allow articles to be pushed off the side of the conveyor belt with a minimum of friction (col. 1, ln. 29-34). Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to provide the conveyor of Lapeyre et al. with a sorting station. Carpenter shows such a sorting station which advantageously employs a linear elongate guide 6. The guide extends in length from a first end to a second end above the outer surface of the conveyor to form a generally vertical wall. The guide is selectively positioned by a drive 8 into a first position traversing the width of the conveyor to intercept a conveyed article and guide it off a first or second side of the belt, a second position not intercepting a conveyed article to allow it to continue to advance in the conveying direction. The drive acts a lift connected to the guide for lifting the guide above the upper surface of the belt into a non-blocking orientation and lowering the guide into a blocking orientation as the guide moves between the first and second positions. When the conveyor of Lapeyre et al. is provided with the diverter of Carpenter it would have all the structure required by claims 1-2, 13, 16-17, and 25.

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*Allowable Subject Matter*

12. Claim 10 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

13. Claims 14-15 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

*Conclusion*

14. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The prior art of record not discussed above show diverter systems similar to that of the present invention.

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mark A. Deuble whose telephone number is (571) 272-6912. The examiner can normally be reached on Monday through Friday except for alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Katherine A Matecki can be reached on (571) 272-6951. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

md

A handwritten signature in black ink that reads "Kathy Matecki". The signature is fluid and cursive, with the first letters of the first and last names being capitalized and prominent.

KATHY MATECKI  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 3600